

CLAIM SET

1. (Original) A liquid crystal display device, comprising:
a substrate;
a gate electrode over the substrate;
a first semiconductor layer over the gate electrode;
a second semiconductor layer over the first semiconductor layer;
a first metal layer on the second semiconductor layer, the first metal layer patterned in a same pattern as the second semiconductor layer such that the first metal layer and second semiconductor layer define the separation region; and
source and drain electrodes over the first metal layer, the source and drain electrodes patterned the same as the first metal layer and the second semiconductor layer to define a first upper portion of the separation region, and
the source and drain electrodes include a second and a third metal layer.
2. (Original) The device of claim 1, further comprising:
an insulating layer in between the gate electrode and the first semiconductor layer;
a protective layer over the source and drain electrodes and defining a second upper portion of the separation region and a contact hole exposing a portion of the drain electrode; and

a pixel electrode in the contact hole.

3. (Original) The device of claim 1, wherein;
the second metal layer includes aluminum or an aluminum alloy.
4. (Original) The device of claim 1, wherein
the first and third metal layers are formed of the same material.
5. (Original) The device of claim 1, wherein
the first and third metal layers are formed of different materials.
6. (Original) The device of claim 1, wherein
the first and third metal layers include titanium, tungsten, tantalum,
chromium or molybdenum.
7. (Original) The device of claim 4, wherein
the first and third metal layers include titanium, tungsten, tantalum,
chromium or molybdenum.
8. (Original) A method of forming a liquid crystal display device,

comprising:

- forming a gate electrode on a substrate;
- forming an active layer over the gate electrode;
- forming a first semiconductor layer over the active layer;
- forming a second semiconductor layer over the first semiconductor layer;
- forming a first metal layer over the second semiconductor layer;
- patterning the first metal layer and the second semiconductor layer in a same pattern; and
- forming a source electrode and a drain electrode over the first metal layer.

9. (Original) The method of claim 8, wherein

- forming the source and drain electrodes includes
- forming a second metal layer over the first metal layer,
- forming a third metal layer over the first metal layer, and
- patterning the second and third metal layers in the same pattern as the first metal layer and second semiconductor layer in the channel region so that a channel portion of the first semiconductor layer is exposed.

10. (Original) The method of claim 8, wherein

- the first metal layer is formed of titanium, tungsten, tantalum, chromium or

molybdenum.

11. (Original) The method of claim 9, wherein
the first and third metal layers are formed of the same material.
12. (Original) The method of claim 9, wherein
the first and third metal layers are formed of a different material.
13. (Original) The method of claim 9, wherein
the second metal layer is formed of aluminum or an aluminum alloy.
14. (Original) The method of claim 9, wherein
the first and third metal layers are formed of titanium, tungsten, tantalum,
chromium or molybdenum.
15. (Original) The method of claim 8, wherein
the patterning of the first metal layer and the second semiconductor layer to
define a channel region includes removing a portion of the first metal layer and
second metal layer corresponding to the gate electrode and exposing the first
semiconductor layer.